

WHAT IS CLAIMED IS:

1. A method of making measurements for a sample
on a measuring surface of a substrate, comprising
forming a circular orbit of detection areas on the
measuring surface on said substrate by moving said
5 detection areas to be detected with a detector relative
to the substrate.

2. The method of making measurements according to
10 claim 1, wherein the circular orbit of the detection
areas is formed while forming a rotational plane of the
measuring surface of the substrate by rotating said
substrate around an axis extending perpendicular to
said measuring surface.

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3. The method of making measurements according to
claim 2, wherein the detection areas are allowed to
move relative to the rotational plane of the measuring
surface.

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4. The method of making measurements according to
claim 1, wherein the circular orbit of measuring areas
is formed by allowing the detector to perform a
rotational movement.

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5. The method of making measurements according to
any one of claims 1 to 4, wherein the sample is

attached on, adsorbed into, or trapped in the substrate.

6. The method of making measurements according to
5 claim 5, wherein the sample is DNA.

7. The method of making measurements according to claim 5, wherein the sample is protein.

10 8. The method of making measurements according to claim 5, wherein the sample is peptide nucleic acid.

9. The method of making measurements according to any one of claims 1 to 4, wherein the sample is
15 attached on the surface of the substrate by a probe for trapping specifically said sample.

10. The method of making measurements according to claim 9, wherein the probe is DNA.

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11. The method of making measurements according to claim 9, wherein the probe is protein.

12. The method of making measurements according to claim 9, wherein the probe is peptide nucleic acid.
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13. The method of making measurements according

to any one of claims 1 to 4, wherein the measurements for the sample are performed using the luminescence from a label.

5 14. The method of making measurements according to claim 13, wherein the luminescence is fluorescence.

 15. The method of making measurements according to claim 13, wherein the luminescence is
10 chemicalluminescence.

 16. The method of making measurements according to any one of claims 1 to 4, wherein measurements for the sample are performed by measuring any one of the
15 absorption, transmission and reflection of the incident light to said sample.

 17. The method of making measurements according to any one of claims 1 to 4, wherein multiple detectors
20 are used.

 18. The method of making measurements according to claim 17, wherein there exist multiple labels to be detected when making measurements for the sample, the
25 labels being detected simultaneously with the corresponding detectors.

19. A device for making measurements for a sample on a measuring surface of a substrate, comprising:

a detector for measuring for a label from the sample;

5 means for supporting a substrate having said sample as the subject of measurements on its measuring surface; and

means for forming a circular orbit of detection areas, on said measuring surface of said substrate by moving said detection areas, in which detection is performed with a detector, relative to said substrate.

20. The device for making measurements according to claim 19, further comprising means for forming a rotational plane of the measuring surface, as means for forming a circular orbit of the detection areas on said measuring surface, by rotating the substrate around the axis extending perpendicular to said measuring surface of said substrate.

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21. The device for making measurements according to claim 20, further comprising means for moving the detection areas relative to the rotational plane of the measuring surface.

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22. The device for making measurements according to claim 19, further comprising means for allowing the

detector to perform a rotational movement, as means for forming a circular orbit of the detection areas on said measuring surface.

5 23. The device for making measurements according to any one of claims 19 to 22, wherein the number of the detectors provided is more than one.

10 24. The device for making measurements according to claim 23, wherein the multiple detectors can operate simultaneously.